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10/550,074

12/05/2005

Janne Markus Muhonen

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EXAMINER

CHAMBERS, TANGELA T

ART UNIT

PAPER NUMBER

4141

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/550,074	Applicant(s) MUHONEN, JANNE MARKUS	
	Examiner TANGELA T. CHAMBERS	Art Unit 4141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 0306711.3.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>September 23, 2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the preliminary amendment filed on November 2, 2006.
2. Claims 1-16 have been canceled.
3. Claims 17-30 have been added.
4. Claims 17-30 are pending.

Priority

5. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 0306711.3, filed on March 24, 2003.

Information Disclosure Statement

6. IDS filed on September 23, 2005 has been acknowledged by the examiner.

Drawings

7. Figures 1, 2, 3 and 5 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

8. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "2" has been used to designate both MS and UE. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement

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drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

9. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "8" has been used to designate MSC/VLR, 2G-MSC and Visiting MSC. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

10. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 8', 8'', Abis, AjsDi, CBC, BTS (LMU Type B), CBC-BSC, CBC-SMLC, E, E₂, Gb, Gs, Iu, Iu-ps, Lb, Lc, Le, Lg, Lh, LMU Type A, LMU Type B, Lp, Ls, OSA-LCS, Um and Uu. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application

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must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

11. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: step q. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities:

'Centre' should be replaced with the following spelling – center – throughout the disclosure.

'Neighbour' should be replaced with the following spelling – neighbor – throughout the disclosure

'Neighbouring' should be replaced with the following spelling – neighboring – throughout the disclosure.

'Signalling' should be replaced with the following spelling – signaling – throughout the disclosure.

Page 2, third paragraph, first line recites the word 'utilising' which should be replaced with the following spelling 'utilizing'.

Page 3, second paragraph, second line recites the phrase 'with a cell' which should be changed to 'within a cell'.

Page 4, first paragraph, first line recites the word 'optimised' which should be replaced with the following spelling 'optimized'.

Page 4, first paragraph, third line recites the word 'cell's' which should be replaced with the following spelling 'cells'.

Page 5, first paragraph, first line recites the word 'translates' which should be replaced with the word 'translating'.

Page 7, the heading is missing the 'o' in the words 'Embodiments' and 'Invention'.

On Page 7, fourth paragraph, first line, the first occurrence of the acronym 'GMLC' should be spelled out with the acronym appearing in parenthesis.

On Page 7, fourth paragraph, fifth line, the first occurrence of the acronym 'MSISDN' should be spelled out with the acronym appearing in parenthesis.

On Page 7, fourth paragraph, eighth line, the first occurrence of the acronym 'SGSN' should be spelled out with the acronym appearing in parenthesis.

Page 8, fourth paragraph, fifth line recites the word 'return' which should be replaced with the word 'returned'.

Page 8, fifth paragraph, eleventh line the word 'described' is missing the second 'e'.

On Page 9, first paragraph, sixth line, the first occurrence of the acronym 'PLMN' should be spelled out with the acronym appearing in parenthesis.

On Page 10, first paragraph, second line, the first occurrence of the acronym 'VMSC' should be spelled out with the acronym appearing in parenthesis.

Page 11, first paragraph, second line, the word 'principle' is missing the letter 'e'.

Page 11, third paragraph, first line recites the word 'difference' which should be replaced with the word 'different'.

Page 11, third paragraph, third line recites the two arcs as elements '26' and '28'. The elements are labeled in FIG. 4 as '38' and '38'.

Page 11, third paragraph, fourth line the word 'respectively' should be followed by a period.

Page 11, fifth paragraph, first line recites the word 'optimises' which should be replaced with the following spelling 'optimizes'.

Page 12, second paragraph, fifteenth line, the letter 'j' should be placed in parenthesis.

Page 12, third paragraph, fourth line recites the phrase 'had got' which should be changed to 'has received'.

Page 13, first paragraph, ninth line recites the word 'optimises' which should be replaced with the following spelling 'optimizes'.

Page 15, eighth paragraph, fourth line recites the word 'fulfil' which appears to be a misspelling of the word 'fulfill'.

Page 17, first paragraph, fifth line the word 'particular' should be removed.

Page 17, first paragraph, sixth line the phrase 'also identifies' should be removed.

Page 17, third paragraph, seventh line the text '(h-o)' should be should be added after the word 'steps'.

Page 18, third paragraph, third and sixth lines recite the word 'standardised' which should be replaced with the following spelling 'standardized'.

Page 18, third paragraph, sixth line recites the word 'establish' which should be replaced with the word 'establishing'.

Appropriate corrections are required.

Claim Objections – Minor Informalities

12. Claim 17 is objected to because of the following informalities: The word user should be replaced with the word 'user's'. Also, the word 'an' in the tenth line should be removed. Appropriate corrections are required.

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13. Claim 18 is objected to because of the following informalities: The word 'signalling' which should be replaced with the following spelling 'signaling'. Appropriate correction is required.

14. Claims 21-23, 25 and 27 and 29-30 are objected to because of the following informalities: The words 'centre' and 'centres' should be replaced with the following spellings 'center' and 'centers'. Appropriate corrections are required.

15. Claims 21-22 are objected to because of the following informalities: The word user should be replaced with the word 'user's'. Appropriate corrections are required.

16. Claim 26 is objected to because of the following informalities: The first occurrences of the acronym 'GSM' should be spelled out with the acronym appearing in parenthesis. Appropriate correction is required.

17. Claim 27 objected to because of the following informalities: The word 'comprising' should be replaced with the word 'comprises'. Appropriate correction is required.

Claim Rejections - 35 USC § 112

18. Claim 21 recites the limitation "a communications system" but is dependant upon claim 17 which is a method claim. There is insufficient antecedent basis for this limitation in the claim. It is suggested that claim 21 be rewritten to be an independent claim.

19. Claim 23 recites the limitation "the network according to claim 20". Claim 20 is a method claim. There is insufficient antecedent basis for this limitation in the claim. It is suggested that claim 23 be dependant upon claim 22.

Claim Rejections - 35 USC § 102

21. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 17-19, 21-22, 25-28 and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Rhodes et al (Rhodes), (US Patent Publication Number 2003/0186709 A1

As per claim 17, Rhodes discloses:

- ***A method for establishing an emergency call between a user equipment within a radio coverage area and one of at least two points able to answer the call, the method comprising:*** (Rhodes, FIG. 1-FIG. 3 and Page 3, Paragraphs [0035]-[0041]).
- ***receiving an emergency call request;*** (Rhodes, FIG. 3 and Page 3, Paragraph [0038], "FIG. 3 shows exemplary steps for a cell tower to route an emergency call to an appropriate switch, as shown in FIG. 1.").
- ***determining a first estimate of the position of said user equipment within said coverage area;*** (Rhodes, FIG. 5, Page 3, Paragraphs [0043]-[0044] and FIG. 10, Page 4, Paragraph [0058], "In sub-step A, the ISUP handler checks the switch profile for the cell site indicated by the GDP=ESRD and that indicates "routing based on position"."), As disclosed in the current application, the first position estimate of the user's equipment is based on its geographical position and is accurate enough to route the call to the relevant PSAP. Rhodes teaches

this by disclosing a method to route an emergency call to the appropriate PSAP based on the identity of the cell site sector serving the user's equipment.

- ***interrupting said call establishment by triggering a control point;*** (Rhodes, FIG. 3 and Page 3, Paragraphs [0038]-[0042], "In sub-step A of 1.1, the mobile switching center (MSC) knows the cell tower's unique 10-digit ESRD."), As disclosed in the current application, the control point is triggered by a switching center after the first position estimate of the user's equipment has been obtained.
- ***using the control point to select, based on said first position estimate which one of said at least two answering points the call is to be established with;*** (Rhodes, FIG. 8 and Page 3, Paragraphs [0049]-[0053], "In sub-step B, the MPC/GMLC associates incoming latitude/longitude location or presence information for the caller's mobile station to the correct emergency services zone and PSAP as provisioned in the CRDB.").
- ***when an at least one answering point has been selected, resuming said call establishment and determining a second more accurate position estimate and sending the second position estimate to the selected answering point.*** (Rhodes, FIG. 9, Page 3, Paragraph [0054] – Page 4, Paragraphs [0055]-[0057], "In sub-step A, updated call data is matched with the existing active call record created by IAM1 using MSISDN from SubLocRpt."), Rhodes teaches that the SubLocRpt Location Estimate is a more precise position estimate of the user's equipment and is available for retrieval by the system until the call is released.

As per claim 18, the rejection of claim 17 is incorporated and further Rhodes discloses:

- ***non-call associated signalling is used wherein messages used to select the at least one of the two answering points during call establishment are separate from the messages used for the established call itself.*** (Rhodes, Page 2, Paragraph [0030] and Page 4, Paragraph [0075] – Page 5, Paragraph [0076]).

As per claim 19, the rejection of claim 17 is incorporated and further Rhodes discloses:

- ***said selecting is done using the control point to translate the first position estimate, which is a geographical position into a routing number of the selected answering point.*** (Rhodes, FIG. 8, Page 3, Paragraphs [0049]-[0053] and Page 4, Paragraph [0072]). The coordinate routing database translates the geographical position of the user's equipment into a routing number of the selected answering point.

Claim 21 is the system claim corresponding to the method claim 17 and is rejected under the same reason set forth in connection of the rejection of claim 17.

Claim 22 has similar limitations as claim 17 and is rejected under the same reason set forth in connection of the rejection of claim 17 and further Rhodes discloses:

- ***a base controller for controlling a base transceiver that provides said radio coverage area;*** (Rhodes, FIG. 1), A base controller is inherently a part of a GSM network.
- ***a switching centre for receiving an emergency call request;*** (Rhodes, FIG. 1 and Page 3, Paragraph [0039]), A mobile switching center (MSC) is disclosed.
- ***a location centre for determining a first estimate of the position of said user equipment within said coverage area;*** (Rhodes, FIG. 3 and Page 3, Paragraphs [0039]-[0042]), A gateway mobile location center (GMLC) used to determine a first estimate of the position of the user's equipment is disclosed.

As per claim 25, the rejection of claim 22 is incorporated and further Rhodes discloses:

- ***the at least two answering points are emergency call processing centres.*** (Rhodes, Page 5, Paragraph [0083]-[0084], "Accordingly, it is most likely that a transfer between PSAPs has been avoided when a call is answered by the PSAP indicated by the caller's precise location, when the PSAP is different from another PSAP indicated by the E911 caller's serving cell sector."), Rhodes teaches that emergency calls are transferred from one PSAP to another when a user is

improperly routed to a first PSAP. This occurs when an emergency call is placed in an area covered by more than one PSAP. This implies that at least two emergency call processing centers are present.

As per claim 26, the rejection of claim 22 is incorporated and further Rhodes discloses:

- ***the control point is a GSM service control point.*** (Rhodes, Page 3, Paragraph [0050] and Page 4, Paragraph [0072], "In sub-step B, the MPC/GMLC associates incoming latitude/longitude location or presence information for the caller's mobile station to the correct emergency services zone and PSAP as provisioned in the CRDB."), As disclosed in the current application, the service control point (SCP) determines the routing address of the relevant PSAP based on the first position estimate and supplies the routing address to MSC. Rhodes discloses a GMLC which is inherently connected to an SCP in order to accomplish this function.

As per claim 27, the rejection of claim 22 is incorporated and further Rhodes discloses:

- ***a gateway location centre for providing an interface between said network and said at least two answering points.*** (Rhodes, Page 3, Paragraph [0050]), A gateway mobile location center (GMLC) providing an interface to the answering points is disclosed.

As per claim 28, the rejection of claim 22 is incorporated and further Rhodes discloses:

- ***the control point comprises a coordinate routing database for mapping a geographical position of said first position estimate into a routing number of said selected answering point.*** (Rhodes, FIG. 8 and Page 3, Paragraphs [0049]-[0053], "In sub-step B, the MPC/GMLC associates incoming latitude/longitude location or presence information for the caller's mobile station to the correct emergency services zone and PSAP as provisioned in the CRDB."), It is disclosed that a coordinate routing database (CRDB) is used to

map the geographical position of the user's equipment to the appropriate answering point.

As per claim 30, the rejection of claim 22 is incorporated and further Rhodes discloses:

- ***the location centre is located separate from said base controller.*** (Rhodes, Page 3, Paragraph [0042], "In sub-step A, the switch is provisioned for all emergency calls to route to the GMLC or MPC/GMLC ISUP point code for the ISUP handlers."), It is disclosed that calls are routed to the GMLC and is therefore obvious that the location center is separate from the base controller.

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rhodes et al (Rhodes), (US Patent Publication Number 2003/0186709 A1) in view of Maanoja et al (Maanoja) (US Patent Publication Number 2004/0259566 A1).

As per claim 20, the rejection of claim 17 is incorporated, however Rhodes does not specifically disclose:

- ***the first position estimate is determined by using an identifier of said radio coverage area and timing advance information.*** However, Maanoja in an analogous art discloses the above limitation. (Maanoja, Page 3, Paragraph [0049], "The TA value and co-ordinates of the cell can be used to estimate the location of the MS.").

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Maanoja into the method of Rhodes to determine the first position of the user's equipment using an identifier of a radio coverage area and timing advance information. The modification would be obvious because one of ordinary skill in the art would want to employ a method that would allow a user's equipment to be located in a manner that is very quick and accurate. (Maanoja, Page 3, TABLE 2).

As per claim 23, the rejection of claim 20 is incorporated and further Rhodes discloses:

- ***the switching centre comprises means for identifying events during the call establishment.*** (Rhodes, FIG. 3 and Page 3, Paragraphs [0038]-[0042]), A mobile switching center (MSC) is disclosed.

As per claim 24, the rejection of claim 23 is incorporated and further Rhodes discloses:

- ***said identifying means is arranged to identify the event when the first estimated position has been determined, and when said event is identified said control point is triggered and said call establishment is interrupted.*** (Rhodes, FIG. 3 and Page 3, Paragraphs [0038]-[0042], "In sub-step A of 1.1, the mobile switching center (MSC) knows the cell tower's unique 10-digit ESRD."), The MSC knows when the first estimated position has been determined as it receives the cell tower's unique ESRD.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rhodes et al (Rhodes), (US Patent Publication Number 2003/0186709 A1) in view of (Weckstrom et al, (Weckstrom) (US Patent Publication Number 2004/0102196 A1).

As per claim 29, the rejection of claim 22 is incorporated, however Rhodes does not specifically disclose:

- ***the location centre is located within said base controller.*** However, Weckstrom in an analogous art discloses the above limitation. (Weckstrom,

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Page 4, Paragraph [0064], "In case of a BSS architecture in which the SMLC is integrated into the BSC, the message is an internal message of the BSC.").

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Weckstrom into the method of Rhodes to have a location center within a base controller. The modification would be obvious because one of ordinary skill in the art would want an alternative configuration to employ based on the needs of the system (Weckstrom, Page 4, Paragraph [0064]).

Conclusion

The prior art not relied upon but considered pertinent to applicant's disclosure is made of record and listed on form PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TANGELA T. CHAMBERS whose telephone number is (571)270-3168. The examiner can normally be reached on Monday to Thursday, 8:30am-6pm Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chameli Das can be reached on 571-270-1392. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tangela T. Chambers

Patent Examiner

Art Unit 4141

December 27, 2007

/CHAMELI C. DAS/

Supervisory Patent Examiner, Art Unit 4141